

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

Listing of Claims

Please cancel Claims 1-19, without prejudice.

Please add Claims 20-29.

Claims 1-19 -- (canceled)

20. (New): A method of recording record information onto information record medium, said information record medium comprising: an information record track formed on said information record medium, for recording said record information; and pre-information which includes address information indicating a position on said information record medium, recorded on said information record medium at an interval corresponding to a length of a pre-information unit equal to an N (N: predetermined integer not less than 2) multiple of a length of a record information unit of said record information,

said method comprising:

a detecting process of detecting said pre-information recorded on said information record medium;

a generating process of generating said record information which includes a synchronization signal added to each record information unit in correspondence with said detected pre-information; and

a recording process of recording said generated record information onto said information record track.

21. (New): A method according to claim 20, wherein

in said recording process, said synchronization signal in said record information is recorded to a position adjacent to said pre-information.

22. (New): A method according to claim 20, wherein

said record information unit is a synchronization frame,
said pre-information is recorded for each pre-information unit doubled said
synchronization frame, and

said method further comprises a determining process of determining an address where
said record information is to be recorded based on said pre-information.

23. (New): A method according to claim 20, wherein
said pre-information includes synchronization pre-information and data pre-information,
and
said synchronization pre-information corresponds to a head portion of a sector including
a plurality of said record information units.

24. (New): A method according to claim 20, wherein
said pre-information is recorded to a guide track for guiding a light beam, which records
said record information, to said information record track, and
said pre-information is detected by a light beam emitted so that a center thereof is located
on a center of said information record track.

25. (New): An information recording apparatus of recording record information onto
information record medium, said information record medium comprising: an information record
track formed on said information record medium, for recording said record information; and pre-
information which includes address information indicating a position on said information record
medium, recorded on said information record medium at an interval corresponding to a length of
a pre-information unit equal to an N (N: predetermined integer not less than 2) multiple of a
length of a record information unit of said record information,
said information record apparatus comprising:
a detecting device which detects said pre-information recorded on said information
record medium;
a generating device which generates said record information which includes a
synchronization signal added to each record information unit in a correspondence with said
detected pre-information; and

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a recording device which records said generated record information onto said information record track.

26. (New): An information recording apparatus according to claim 20, wherein
said recording device records said synchronization signal in said record information to a position adjacent to said pre-information.

27. (New): An information recording apparatus according to claim 20, wherein
said record information unit is a synchronization frame,
said pre-information is recorded for each pre-information unit doubled said one synchronization frame,
said apparatus further comprises a determining device which determines an address where said record information is to be recorded based on said pre-information.

28. (New): An information recording apparatus according to claim 20, wherein
said pre-information includes synchronization pre-information and data pre-information,
and
said synchronization pre-information corresponds to a head portion of a sector including a plurality of record information units.

29. (New): An information recording apparatus according to claim 20, wherein
said pre-information is recorded to a guide track for guiding a light beam, which records said record information, to said information record track, and
said pre-information is detected by a light beam emitted so that a center thereof is located on a center of said information record track.